

Name: _____

Date: _____

A2 CC: Some Review for Exam1 Quarter 2

This review sheet is not comprehensive. Please look over your old exams, homework assignments, and notes to prepare fully spending time specifically on questions that you struggled with on those assessments. **PLEASE DO ALL WORK ON SEPARATE LINED PAPER. Due: Tuesday, November 28th**

1. Solve: $\frac{2x}{x-8} - \frac{5}{2} = \frac{x+8}{x-8}$

2. Solve for b : $3b^{-\frac{1}{2}} + 1 = 10$

3. Solve for x : $x - \sqrt{x+4} = 2$

In 4-5, factor each completely

4. $10x^2 + 38x + 24$

5. $x^4 - 16$

In 6-8 , solve each.

6. $x^2 - 8x + 4 = 0$

7. $x^4 - x^2 - 12 = 0$

8. $16x^2 - 25 = 0$

In 9-11, solve each by COMPLETING THE SQUARE.

9. $x^2 - x - 12 = 0$

10. $3x^2 - 5 = 2x$

11. $x^2 + 8x + 10 = 0$

In 12-13, solve using the Quadratic Formula.

12. $x^2 = 6x - 1$ (Final answers must be in simplest radical form.)

13. $2x^2 - 7 = 3x$ (Final answers should be rounded to the nearest hundredth.)

14. If a quadratic equation with real coefficients has a discriminant of -2 , then its two roots must be
 (1) equal (3) real and irrational
 (2) imaginary (4) real and rational
15. The roots of $ax^2 + 4x + 2 = 0$ are real and equal when a is equal to
 (1) 1 (2) 2 (3) 3 (4) 4
16. Find the largest integral value of k in the equation $kx^2 - 5x + 3 = 0$ that will make its roots real.
17. Find the smallest integral value of c for which the roots of $x^2 - 6x + c = 0$ are imaginary.
18. Solve for x : $\frac{\frac{2x}{x+1}}{1 - \frac{x}{x+1}}$
19. Solve for x : $\frac{x - \frac{1}{3}}{3 - \frac{1}{x}}$
20. Combine and Simplify: $\frac{4}{y^2 - 4} + \frac{3}{2y - y^2}$